SECTION 4:
Inspection Log

Purchase Date: _____

Purchased From: _____

INSPECTION DATE	INSPECTED BY	PRESSURE TEST RESULT* (AFTER 4 MINUTES @ 4" H_2O)	COMMENTS

Removed from Service Date: _____

Reason for Service Removal: _____

*Minimum pressure requirement after 4 minutes is 3.2" H_2O (for a complete ensemble).

Thank you for choosing ONEGlove®.

At Saint-Gobain Performance Plastics, your safety is our only concern. If you have any questions or comments, please don't hesitate to contact us directly.

SAINT-GOBAIN PERFORMANCE PLASTICS

Saint-Gobain Performance Plastics Protective Systems

701 Daniel Webster Highway
Merrimack, NH 03054
Tel: 603.424.9000
Fax: 603.424.9044

Technical and Customer Services: 800.451.6101

www.oneglove.com

SECTION 5:
Disclaimers and Warning/ Warranty/Limitation of Liability

Disclaimers and Warning:
Information contained in this User Manual and Technical Guide (the "Technical Manual") is based on technical data and other information that SGPPL believes to be reliable. Such information may be revised, amended or supplemented as additional data and/or information becomes available to SGPPL.

Information contained in this Technical Manual is based on certain tests conducted on the fabric comprising the ONEGlove® (the "Gloves") and on the finished Gloves.

Information contained in this Technical Manual is intended to be used by the purchaser of the Gloves to determine if the Gloves are suitable for such purchaser's specific use or application. Any such determination is made at the purchaser's sole risk and SGPPL assumes no liability in connection with the use of such information by any such purchaser.

NO GLOVE CAN PROVIDE COMPLETE PROTECTION UNDER ALL CONDITIONS AND FOR ALL USES AND APPLICATIONS. IT IS THE SOLE RESPONSIBILITY OF THE PURCHASER TO DETERMINE THAT THE GLOVES ARE APPROPRIATE AND SUITABLE FOR THE PURCHASER'S SPECIFIC USE OR APPLICATION.

It is the responsibility of the purchaser and/or the end user of the Gloves to, among other things:

(1) Determine that the Gloves are suitable for such purchaser or end user's specific use or application;

(2) Understand the information contained in this Technical Manual relating to the proper use, handling, maintenance, storage and disposal of the Gloves;

(3) Read, review and understand the information contained in this Technical Manual and any other information supplied to the purchaser with respect to the Gloves;

(4) Confirm that the Gloves are appropriate for the purchaser and/or end users' specific use or application and comply with all government and industry standards and requirements applicable to the purchaser's use or application; and

(5) Diligently inspect the Gloves before and after each use for wear and damage. See additional information relating to inspection of the Gloves for wear and damage contained elsewhere in this Technical Manual.

General Disclaimer:
THIS WARRANTY REPLACES ALL OTHER ORAL OR WRITTEN WARRANTIES, LIABILITIES, OR OBLIGATIONS OF SGPPL. EXCEPT AS EXPRESSLY SET FORTH IN THE PRODUCT WARRANTY SET FORTH BELOW, SGPPL MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND AND SGPPL EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, IN FACT OR IN LAW, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. PERTINENT STATE LAW WILL CONTROL FOR WHAT PERIOD OF TIME FOLLOWING THE SALE A CUSTOMER MAY SEEK A REMEDY UNDER THE IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE

Warning:
If the Glove becomes torn or frayed, is abraded, ripped or punctured, or the integrity of the Glove is otherwise compromised in any way (collectively "Damaged"), the purchaser and/or end user should immediately discontinue use of the Glove. Failure to discontinue use may result in injury or exposure to potentially harmful chemicals.

Warranty:
SGPPL warrants to the purchaser and/or end user of the Gloves that the Gloves will be free from defects in material and workmanship for a period of ninety (90) days from the date of purchase (the "Product Warranty") provided that the Gloves have (i) been stored, used and maintained properly in accordance with all written instructions and recommendations contained in this Technical Manual provided by SGPPL with the Gloves and (ii) not been damaged, altered, modified or repaired.

EXCEPT AS EXPRESSLY SET FORTH IN THE PRODUCT WARRANTY, SGPPL MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND AND SGPPL EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, IN FACT OR IN LAW, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

The purchaser and/or end user's exclusive remedy for Gloves which breach the Product Warranty, regardless of the legal theory on which any such claim may be based (including without limitation contract, warranty, or tort), will be the replacement of such non-conforming or defective Gloves or, at SGPPL's election, the refund of the purchase price paid for such Gloves.

In the event that the purchaser and/or end user believes that the Gloves breach the Product Warranty, the purchaser and/or end user must provide SGPPL with such Gloves and a detailed statement of the non-conformance or defect. SGPPL will advise the purchaser as soon after its investigation as possible, whether or not SGPPL concurs that the Gloves breach the Product Warranty. If SGPPL, in its sole discretion, concurs that the Gloves breach the Product Warranty, SGPPL will, as purchaser's sole and exclusive remedy, effect a replacement or refund with respect to such Gloves.

Limitation of Liability:
To the fullest extent permitted by law, SGPPL shall not be liable to the purchaser, the end user or to any third party for any indirect, special, incidental, or consequential damages arising out of the sale, delivery, use or disposal of the Gloves, including without limitation any such damages resulting from breach of warranty, negligence in design, manufacture, warning or testing, strict liability or otherwise, and including those arising from the sale, delivery, use or disposal of the Gloves sold to the purchaser by any person or entity. In no event shall SGPPL's liability for any loss or damage arising out of or resulting from the sale, delivery, use or disposal of the Gloves exceed the purchase price paid by the purchaser for such Gloves. Some states do not allow limitations on, or the exclusion of, incidental or consequential damages, so the above exclusions may not apply to you.

KEVLAR® and NOMEX® are registered trademarks of E.I. du Pont de Nemours and Company.
CHALLENGE® and ONEGlove® are registered trademarks of Saint-Gobain Corporation.

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Printed in U.S.A

User Guide and Technical Manual

ONEGlove® – ONE Solution

Features:

- **Ergonomic design**
- **Integrated construction**
- **Universal suit compatibility**
- **Cut and puncture resistance**
- **Industrial chemicals and warfare agents protection**
- **Gas- and liquid-tight construction**
- **Multi-use glove**

Benefits:

- **High dexterity, easy to use and comfortable**
- **Maximum protection**
- **Air-tight seal**
- **Safety and protection**
- **Industrial-military and hazmat applications**
- **Tested for protection from NFPA specified hazards**
- **Less inventory and simplified logistics**

SECTION 1:
Introduction to ONEGlove® Hazmat
What is ONEGlove?

ONEGlove® Hazmat is a revolutionary high-dexterity protective glove. Designed for maximum protection, ONEGlove Hazmat provides chemical/biological, fire, cut and puncture resistance, and delivers incredible versatility for the most demanding tasks.

ONEGlove Hazmat protects against:
- Industrial chemicals
- Chem/Bio agents
- Solvents, oils and lubricants
- Liquefied gas
- Flash fires
- Punctures and cuts
- Viral penetration

Description of materials
ONEGlove Hazmat uses only materials that have passed the most rigorous testing. The outer portion is made from KEVLAR®, ensuring the highest level of protection against both flame and heat. A moisture-management layer, made from NOMEX®, is incorporated on the inside of the glove to help with both comfort and feel. The barrier layer comprises a multi-layered fluoropolymer to provide the user protection against whatever hazard he or she might come into contact with.

Compliance statements
All ONEGlove products are designed with the user's absolute protection as the paramount goal, and as such every product is 100% leak tested prior to shipment. NFPA certification testing is conducted through SEI, and ONEGlove Hazmat is certified to the following standards:

- NFPA 1991 – *Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies (2005 Edition);*
- NFPA 1994 Class 2 –*Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents (2012 Edition).*

Refer to Section 3 for information on the test results of the above standards.

NOTE:
Proper use is in accordance with NFPA 1500 – *Standard on Fire Department Occupational Safety and Health Program:*

- *Users in the U.S.: 29 CFR 1910.132 "Personal Protective Equipment"*
- *Users outside the U.S.: Consult national or other applicable personal protective equipment regulations.*

SECTION 2A:
Pre-Use Information

Safety considerations
All protective equipment needs to be well maintained in order to function properly. ONEGlove Hazmat is no exception. Users must read this guide thoroughly, and should take the following precautions into consideration:

1. Avoid direct flame contact. The glove is not intended for use in or near an open flame for extended periods of time.

2. Avoid continuous exposure to any known hazardous substance. Do not purposely expose the glove to a constant liquid/vapor hazard.

3. If the following symptoms are experienced, the user MUST leave the "hot zone": fever, nausea, dizziness, eye irritation, breathing difficulty, excessive fatigue, or any unusual odor or taste.

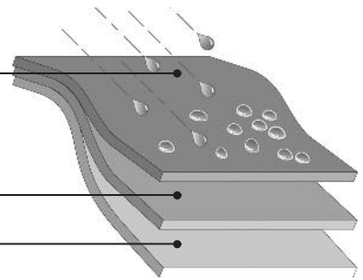
Limitations of use
This product is recommended for use as described in the standards to which it is certified. If it is suspected that this product has come into contact with a hazardous substance, dispose of it using appropriate departmental procedures.

Marking restrictions
It is recommended that this product not be marked in any way. Doing so may compromise the integrity of the product.

Closure recommendations
The design of this product allows for many different closure methods to seal it to the protective suit. Please refer to the user guide for the specific suit being used in conjunction with ONEGlove Hazmat for proper closure method(s).

Inner gloves
Because a moisture-management liner is integrated into this product, an inner glove is not necessary. While some users might find that an additional "comfort" liner is desirable, it is not recommended due to the decrease in dexterity and overall hand function that will result.

ONEGlove Construction



Shelf life
The ONEGlove Hazmat is expected to last at least 15 years. The glove system is to be inspected and pressure-tested with the appropriate protective suit once a year using procedures specified by the protective suit instructions. If there is any question about the condition of the product, discontinue use immediately.

SECTION 2B:
Preparation for Use

Sizing
ONEGlove Hazmat has been sized to fit a wide range of users. Please refer to the diagram and table at right to find the appropriate size.

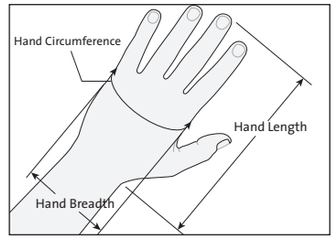
SECTION 2C:
User Guide
Donning/Doffing Information

Donning and doffing procedures
ONEGlove Hazmat's design allows it to be both donned and doffed with great ease. Once the glove is attached to the suit, the user can simply insert his or her hand into the glove.

The majority of protective suits can accommodate ONEGlove Hazmat; please refer to the user guide of the particular suit for proper attachment procedures.

Interface issues
Should issues arise regarding the interface between the protective suit and ONEGlove Hazmat, please refer to the user guide for the suit or contact ONEGlove Technical Services at 1.800.451.6101.

Recommended storage practices
ONEGlove Hazmat should be stored in a safe and dry location, with temperature maintained between 25°F (-4°C) and 110°F (43°C). In addition, ONEGlove Hazmat is to be stored in a covered container that protects it against UV light.



Hand Length	Hand Circumference	Hand Breadth	Recommended Size	Product Codes Universal Cuff	Product Codes OEM-Specific Cuff
6-7/8	7 – 7-1/2	3-1/4	7 (Small)	22403M	22410M
7-3/8	7-1/2 – 8	3-1/2	8 (Medium)	22404M	22411M
7-7/8	8 – 9	3-5/8	9 (Large)	22405M	22412M
8-3/8	9 – 10	3-7/8	10 (x-Large)	22406M	22413M
8-7/8	10 – 11	4	11 (xx-Large)	22407M	22414M

NOTE: "Hand Length" is measured from tip of middle finger to wrist bone.
"Hand Breadth" is measured at the base of the fingers.
"Hand Circumference" is circumference at the base of the fingers.
Data is either identical to or extrapolated from the 1988 Army Anthropometric Survey summary statistics.

SECTION 2D:
Maintenance and Cleaning Information

Cleaning instructions/precautions
This product may be laundered using a light detergent and the delicate setting on a standard washing machine. Dry ONEGlove Hazmat using low heat and the delicate cycle of any standard clothes dryer. WARNING: Do not use bleach as cleaning detergent. Do not use if not thoroughly cleaned and dried.

Inspection details
A visual inspection of this product and a pressure test must be performed and passed prior to each use (in accordance with the requirements of the specific protective suit being used). If any tears or cuts in the glove are observed, discontinue use immediately. In addition, if the glove fails to pass the leak test criteria, discontinue use immediately. Record test results on the inspection log found on the reverse side.

Maintenance criteria
At a minimum, the glove system should be inspected and pressure-tested once a year with the protective suit it is to be used with. If there is any question about the condition of the product, discontinue use immediately. To pressure-test this product, please refer to the user guide for the specific suit for detailed instructions.

Most performance properties of ONEGlove Hazmat cannot be tested by the user in the field.

Decontamination procedures
Due to the nature of this product, ONEGlove Hazmat cannot be decontaminated. If it is suspected that ONEGlove Hazmat has come into contact with a hazardous substance, dispose of it using the appropriate departmental procedures.

SECTION 3:
Technical Data Package
ONEGLOVE® – PERFORMANCE: CERTIFICATION TESTING

NFPA 1991-2005 / NFPA 1994-2012
Material Permeation (after Flex and Abrasion)

CHEMICAL	METHOD	REQUIREMENT	RESULT
Acetone	ASTM F 739	Time to breakthrough 0.10µ/cm²/min (60 minutes min)	>200†
Acetonitrile			>480
Ammonia			>480
1,3-Butadiene			>480
Carbon Disulfide			>480
Chlorine			>480
Dichloromethane			>480
Dimethylamine			>480
Dimethylformamide			>480
Ethyl Acetate			>480
Ethylene Oxide			>480
Hexane			>480
Hydrogen Chloride			>480
Methanol			>480
Methyl Chloride			>480
Nitrobenzene			>480
Sodium Hydroxide			>480
Sulfuric Acid			>480
Tetrachloroethylene			>100
Tetrahydrofuran			>100
Toluene			>480
Cyanogen Chloride (CK)			>60**†
Carbonyl Chloride (CG)			>60**†
Hydrogen Cyanide (HCN)			>60**†
Dimethyl Sulfate			>480
Sarin (GB)	ASTM F 739	Cumulative Permeation <1.25 µg/cm² (after 1 hour)	PASS
Soman (GD)			PASS
Nerve Agent (VX)			PASS
Distilled Mustard (HD)		Cumulative Permeation <4.0 µg/cm² (after 1 hour)	PASS
Lewisite (L)			PASS

Testing stopped at 60 minutes

Physical Properties and Garment Tests

PROPERTY	METHOD	REQUIREMENT	RESULT
Cut Resistance (mm)	ASTM F 1790	25.0 min	>50.0
Puncture Resistance (N)	ASTM F 1342	22 min	>90
Flammability Resistance – Flash Test – After Flame Time (sec)	ASTM F 1358	2.0 max after 12-sec exposure	0.0
Flammability Resistance – Char Length (in)	ASTM F 1358	4.0 max	<1.0
Thermal Protective Performance	ISO 17492	≥12	35.8
Liquid-Tight Integrity (Pass/Fail)	ASTM D 5151	No leakage after 1 hour	PASS
Donning Time (sec)	NFPA	10.0 max	<3.0
Hand Function (% Bare-Handed Control)	NFPA	300 min	<200
Laundry Shrinkage (% of both length and width after 5 launderings)	AATCC 135	8.0 max	<1.5
Cold Temperature Performance (N x m)	ASTM D 747	0.057 max	0.001
Viral Penetration Resistance	ASTM F 1671	No penetration	PASS